We claim

1. A polyethylene moulding composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.958 g/cm³ at 23 °C and an $MFR_{190/5}$ in the range of from 0.30 to 0.50 dg/min, and which comprises from 40 to 50 % by weight of a low-molecular-mass ethylene homopolymer A, from 25 to 35 % by weight of a high-molecular-mass copolymer B made from ethylene and from another 1-olefin having from 4 to 8 carbon atoms, and from 24 to 28 % by weight of an ultrahigh-molecular-mass ethylene copolymer C, wherein all of the percentage data are based on the total weight of the moulding composition.

2. A polyethylene composition as claimed in claim 1, wherein the high-molecular-mass copolymer B contains small proportions of from 0.2 to 0.5 % by weight of co-monomer having from 4 to 8 carbon atoms, based on the weight of copolymer B, and wherein the ultrahigh-molecular-mass ethylene copolymer C contains an amount in the range from 1 to 2 % by weight of comonomers, based on the weight of copolymer C.

3. A polyethylene composition as claimed in claim 1 or 2, which, as co-monomer, contains 1-butene, 1-pentene, 1-hexene, 1-octene, 4-methyl-1-pentene, or a mixture of these.

4. A polyethylene composition as claimed in one or more of claims 1 to 3, which has a viscosity number VN_{tot} of from 330 to 380 cm³/g, preferably from 340 to 370 cm³/g, measured to ISO/R 1191 in decalin at 135 °C.

5. A polyethylene composition as claimed in one or more of claims 1 to 4, which has a swell ratio in the range of from 130 to 145 %, and a notched impact strength (ISO) in the range of from 14 to 17 kJ/m², and a stress-crack resistance (FNCT) in the range of from 150 to 220 h.

6. A process for producing a polyethylene composition as claimed in one or more of claims 1 to 5, in which the monomers are polymerized in suspension at a temperature in the range of from 20 to 120 °C, at a pressure in the range of from 0.15 to 1 MPa, and in the presence of a high-mileage Ziegler catalyst composed of a transition metal compound and of an organoaluminum compound, which comprises conducting polymerization in three stages, where the molecular mass of the polyethylene prepared in each stage is regulated with the aid of hydrogen.

7. A process as claimed in claim 6, wherein the hydrogen concentration in the first polymerization stage is adjusted so that the viscosity number VN_1 of the low-molecular-mass polyethylene A is in the range from 60 to 80 cm^3/g.

8. A process as claimed in claim 6 or 7, wherein the hydrogen concentration in the second polymerization stage is adjusted so that the viscosity number VN_2 of the mixture of polymer A and polymer B is in the range from 160 to 200 cm^3/g.

9. A process as claimed in any of claims 6 to 8, wherein the hydrogen concentration in the third polymerization stage is adjusted so that the viscosity number VN_3 of the mixture of polymer A, polymer B, and polymer C is in the range of from 330 to 380 cm^3/g, in particular of from 340 to 370 cm^3/g.

10. The use of a polyethylene composition as claimed in one or more of claims 1 to 5 for producing canisters with a capacity in the range from 2 to 20 dm^3 (l), where the polyethylene composition is first plasticized in an extruder in the range from 200 to 250 °C and is then extruded through a die into a mould, where it is first blown up and then cooled and solidified.

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